

MII Playback

Monthly Newsletter July 1995 Volume 5, Number 7

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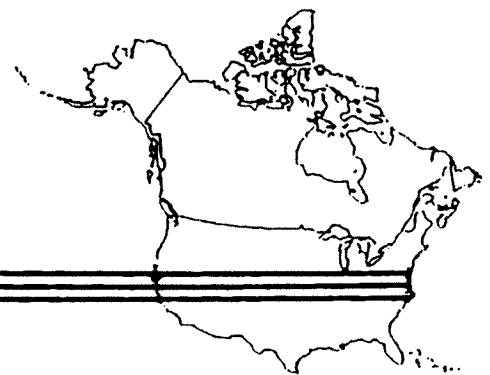
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MII

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MII Playback is a monthly newsletter published by the MII Users Association for the benefit of the members.

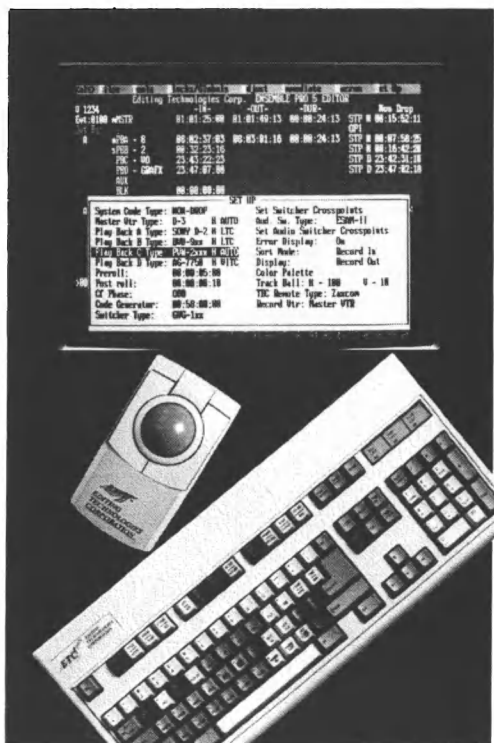
Executive Director David R. Gardy

Publications Editor Jonathan Trenn

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The MII Users Association can be contacted at:
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Supporting Our Supporters.....

Executive Commentary

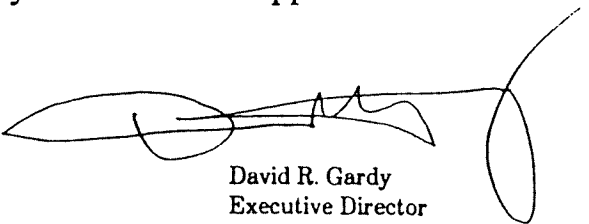
July 1995

You'll notice that the newsletter advertising page count has risen over time, as companies have realized the growth of MII in the marketplace and the special target demographics that this publication affords them. I know I speak for all the users when I say we truly value the support of our organization by our advertisers. Its important before any of us writes the next purchase order, to make sure that the manufacturers and service providers who advertise within our hallowed pages be given an opportunity to bid on the effort. Many have been supporting MII and our association for years and they deserve our support. This includes our corporate sponsors listed on the inside front page of the newsletter. Supporting each other is also important. Remember, our association headquarters acts as a clearing house to refer work from one MII house to another. Need an

MII crew in Minneapolis? Save your client some money and farm it out to one of our MII brothers in the Twin Cities. You'd be surprised how successfully this approach has fostered MII format growth.

Finally, at press time, Jonathan Trenn, our association administrator, was about to become a father. Please be patient over the next few weeks as various Gardy McGrath employees try to step into his shoes while he's on paternity leave with his new baby boy, which he better name after me (just kidding). We all are grateful for the job he's done over the last year and wish him the best of luck with the new addition.

Keep those MII machines cool during the heat wave, and thank-you for your continued support.



David R. Gardy
Executive Director
MII Users Association of America

The Association needs your 1994-1995 membership dues!!!!

This form and a \$25.00 fee are required to continue membership in the association and receive this monthly newsletter. Please don't hesitate. (Thanks to the many who have

already sent in their membership fees!) We have tried to make this form as simple as possible. Please take the time to fill it out now. We would appreciate it if you would take a few extra minutes to provide the information in the "optional" section so that we may better serve the association. This form and your \$25.00 dues must be returned *immediately*. ***Make checks payable to the MII Users Association of America. Return to: MII Users Association of America, c/o Gardy-McGrath (Int'l), Inc., 1950 Roland Clarke Place, Reston, VA 22091. Phone (703) 620-6000, fax (703) 620-0451.***

Membership Registration Form

Date: _____ Renewal: _____ New Member: _____

Contact Name: _____

Company Name: _____

Mailing Address: _____

Phone Number: _____ Fax Number: _____

Type of Business/Services: _____

Optional:

How did you hear about the association? _____

Check all that apply: Duplication facility (List additional formats below) _____ MII Rental Facility _____

MIJ User _____ MII Owner _____ MII Dealer _____ MII Repair Center _____ Other _____

If you own MII, how long have you had it? _____

What model numbers? _____

If you do not own MII, are you planning to get it? _____

Additional Comments/Equipment: _____

Check number: _____ Name on Check: _____ Date: _____

Check or Credit Card (VISA or MC only) Number: _____

Expiration Date: _____ Authorized Signature: _____

Dues cover the period from Sept. 1, 1994 through Sept. 1, 1995. Below is for office use only.

Received: _____ Membership List: _____ Mailing List: _____



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- * Special discount available for all MII user members. Dial extension #3 for details.

WHEN WE LEFT OUR STORY LAST TIME, BETA-BAGE HAD LEFT "S" CORP TO BECOME "D-3 DAME"... JUST IN TIME FOR NAB. WELL, AS THINGS GO IN VEGAS, SURE ENOUGH OUR HERO AND D-3 DAME TIED THE KNOT AT ONE OF THOSE CHAPELS WITH VELVET ELVIS PAINTINGS ON THE WALL. IT WAS A MAGIC MOMENT, ALL SHOT WITH PANASONIC 565 CAMCORDERS ON MZ.

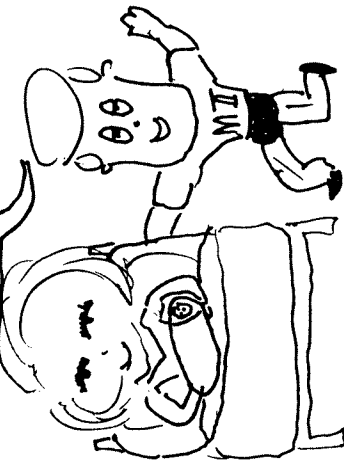


WE DO!!

DO YOU PROMISE TO REMAIN AS A STABLE, HIGH QUALITY, SIGNAL THROUGH MULTIPLE GENERATIONS TO COME?

AND OF COURSE, AS ONLY CARTOON LIFE COULD ALLOW, SOON THERE WAS A LITTLE ADDITION TO THE CLAN....

HIS NAME... "DYCARO"
"ACHIEF" OFF
THE "OL BOARD"



MZ MAN TOURED THE WORLD WITH HIS NEW SON PASSING ON THE WISDOM OF HIS YEARS.



CREAK

THEY WENT TO THE GREAT GOD OF VIDEO, LOCATED IN A SECRET CORNER OF THE UNIVERSE, BUT RUMORED TO BE SOMEWHERE NEAR EXIT 11 OFF THE JERSEY TURNPIKE.

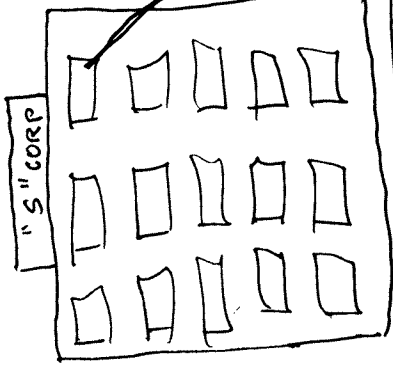


OH GREAT GOD OF VIDEO, MASTER OF THE COLOR BARS, WHAT COUNSEL DO YOU HAVE FOR MY NEW SON?

WHATEVER YOU DO, STAY AWAY FROM BETA UVW!!

MEANWHILE THE DARK SPECTRE OF EVIL AND SIGNAL DISTORTION LURKED WITHIN THE CONFINES OF "S" CORP.

STAY TUNED.....



THIS PANASONIC DYCARO WAS A SHOW-STOPPER AT NAB. IF WE DON'T DO SOMETHING FAST, WE COULD END UP LOSING BIG!



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For further information about the **TM8615** and other high quality, fieldworthy camera control products, please contact:

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MII Rental Facilities

Contact the association if you would like your company added to this listing.

Alpha Video Edina, MN
 (612) 896-9898
 Complete MII Edit Facilities

AudioVisual Headquarters
 Rancho Dominguez, CA
 (310) 885-4200 Rent out 3-AU-65's, they have shipping cases.

Avon Productions S.
 Plainfield, NJ (908) 756-0643
 Studio & Field MII, Cameras, etc.

Avonix Brookfield, WI
 800-222-6050
 Full line of MII available

Broadcast Video Products
 480 Main St Armonk, NY
 (914) 273-6649, Jack Miller

Communications Televideo Ltd.
 (CTL) Silver Spring, MD
 (301) 585-6311 AU-65, D-3
 AJD350 Editor, D-3 AJD310 Camcorder

Cinequipt St Paul, MN

(612) 646-1780 Full line of MII available

Davis Audio Visual Inc Denver, CO
 (303) 455-1122

ECI Video Dallas, TX
 800-880-9400
 AU-63H, AU-65H, WV F700 cam
 /AU-410 dockable

Metrovics, Inc. Los Alamitos, CA
 (310) 430-3509 Full line of MII available

Professional Desktop Video Systems
 Glendale, CA
 800-862-7820
 Camcorder WV-F700/AU 410

Pro Line Video Austin, TX
 (512) 837-2000 x30
 Full line of MII available

Russell Video Svs. Inc. Ann Arbor, MI
 (313) 677-4400
 Bob Russell

Video Management Systems
 Indianapolis, IN
 (317) 639-6163 Sony M7 Cam., AU
 500 Portable MII Deck

Video Replay Chicago, IL
 (312) 467-0425 AU-66H

Vidicom Distributors

Houston, TX
 (713) 694-6400

WGVI/WGVK-TV
 Grand Rapids, MI
 (616) 771-6666, TDD 800-748-0488 AU-650, AU-500, AU-400

Canadian Rentals:

Edcom Multimedia
 Kitchener, Ontario
 N2B 2E1
 (519) 578-2260 WV-F500/AU/-45H, AU-W35H

Instructor Aids
 Halifax, Nova Scotia
 (902) 468-2226 WV-F250/AU45H, AU-W35H

Inter-cite Video Montreal, Quebec
 (514) 342-4545
 WV-F700/AU-410's, WV-F7000, AU-520S, WV-F500/AU-45H, AU-63H, (2) AU-65H, (1) AU-W33H, (1) AU-W35H.

Smith Sound Productions
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VidCom Vancouver, B.C.
 (604) 732-9711 WV-F250/AU400 Camcorder, AU-63, AU-65, AU-550□

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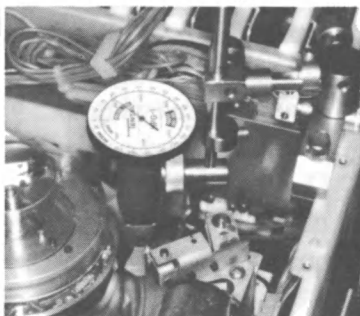
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PANASONIC

PANASONIC EQUIPMENT SELECTED FOR NEW PORTLAND, OREGON ROSE GARDEN ARENA

*Panasonic Video Displays, Digital Video
Equipment Chosen*

Portland, OR (July 1995) -- When the Rose Garden Arena - the new home of the Portland Trail Blazers professional basketball team - opens in early October, it will be equipped with advanced large-screen video displays and professional video equipment from Panasonic Broadcast & Television Systems Company (PBTSC), Secaucus, NJ.

The Portland Trail Blazers have made a multi-million dollar purchase of Panasonic professional and consumer products for the Rose Garden Arena. The Panasonic equipment to be supplied for the arena will include four large-screen video displays, broadcast video equipment, televisions, professional and consumer audio products, office copiers and point-of-sale systems.

"In our judgment, Panasonic outperforms its competition in every way," said Marshall Glickman, President, Blazers and Oregon Arena Corporation. "The showcase of our deal is the new generation of Astrovision. Our fans will get much better resolution and a bigger screen size. Behind the scenes, we will support our entire broadcasting business with a state-of-the-art digital control room, featuring Panasonic professional broadcast equipment. And also, perhaps most important, this is a terrific company to work with."

Steve Bonica, President, PBTSC, said, "Panasonic is very pleased that the Portland Trail

Blazers have chosen products at the leading edge of video technology -- Astrovision large-screen video displays, D-5 digital VTRs and digital signal processing cameras -- for a venue that is the most ambitious multi-purpose indoor arena in North America. The Rose Garden is a testament to the systems design expertise and vast product offerings Panasonic can provide for arenas, stadiums and public facilities of any size."

The company's Special Markets Division will coordinate the integration of the Panasonic products into the arena.

The Rose Garden Arena will feature Panasonic's four-sided, center hung Astrovision large-screen video displays. The crystal-clear, high-resolution images produced by the four (9.6 feet high x 13 feet wide) Astrovision video displays will give every spectator the best possible view of the fast-paced action. In each of the four corners of the arena concourse are Media Totems equipped with Panasonic 13-inch televisions. Each totem will be configured into a two-screen (high) by two-screen (wide) information station for spectator viewing.

For the arena's video production requirements, Panasonic broadcast video equipment will be used for the on-air broadcast and post production of Trail Blazer basketball games as well as other arena events. The Panasonic AQ-23W portable 16:9/4:3 switchable digital processing cameras will acquire the video images for viewing on the Astrovision displays, videowalls and on the cable telecasts. Panasonic's D-5 10-bit digital component VTR's have been purchased to allow the Trail Blazers to make high quality video recordings.

More than 675 Panasonic televisions (ranging in size for 10 inches to 31 inches) will be located in the arena's executive suites, food concession areas, on eight Media Totems and in other

locations throughout the arena. In the executive suites, Panasonic's professional Ramsa audio speakers and Technics stereo audio rack systems will be equipped for spectators' listening pleasure.

In addition, interactive multimedia Media Totems, equipped with Panasonic large-screen televisions, 3DO interactive games machines and product displays, will be located in one quadrant of the arena on multiple concourse levels, providing information and entertainment for event attendees.

"Panasonic's Media Totem is just awesome," added Glickman. "3DO stations...product displays...all kinds of interactivity. Panasonic is the perfect media totem partner - this will be one of the coolest corporate showcases in the United States."

The Media Totems will serve as a way-finding device for patrons and information stations, as well as an enormous marketing structure. The Totem is wedge-shaped, rising about 23-feet, 9-inches from

the Main Concourse, while approximately 8-feet wide at its widest point. The Main totem rises from the main level through the preferred level, offering interaction in both locations. A second Totem reappears on the Upper Level, standing about 16-feet tall and 5-feet wide. Both Totems (main and upper) will feature a scoreboard system with Panasonic video monitors (a total of seven monitors offering sports, product and event information), phones and drinking fountains. Both structures are fully wired with electronics capabilities and ambient sound.

Also, as part of the sale, Panasonic's sophisticated point-of-sales systems will be equipped in the food concession areas and Panasonic high-speed office copiers will be used in the arena office.

THE MANY GENERATIONS OF MII

Ontario, CA (July 1995) -- How many generations can be used in working with MII? Larry O. Dean happily reports 35!

Dean, owner of R-VCR, was creating a live video montage entitled *"News From Home"* to promote a news magazine show. The tapes, originally on a SVHS camera had images compressed to quarter size and positioned by a Panasonic AVES mixer. A Prime Image Switch mixed the previously recorded montage bed playback from MII with DSK external key shapes generated by computer for variety. All video was Y/C connected to eliminate any NTSC decoding.

As the montage was built, new images would eventually effectively cover older so that "only" about the twelfth generation or less video elements would be fully visible at the top of the heap. Since all of the elements of the montage remain as live video, not frozen, the piece maintains its rich visual content -- a good idea for a promo that could see

repetitive play. This was done entirely in analog with only the initial pix compression and the key shape being digital effects.

The AU/63AU65 edit pair provided frame accurate inserts. Just as importantly the three cable component connection feature meant that the layback would be a virtual perfect copy of the developing master. In fact, since the layback is also a complete version of the montage, with mixed audio (leaving the master un-mixed for future revision), it was used to make the SVHS air copy and VHS demos. Or the 38th generation, if anyone's still counting.

Larry is owner of R-VCR, a production company in Ontario, CA. He specializes in production television programs for local commercial and cable stations. He also does extensive video work for Valley College, another MII facility.

16TH ANNUAL TELLY AWARDS SEEM TO HAVE "MII" WRITTEN ALL OVER THEM

The 16th Annual Telly Award treated certain members of the MII Users Association of America quite well.

The awards are given each year to showcase and give recognition to outstanding video and productions along with non-network and cable commercials. Winners and finalists have come from a large cross-section of agencies, production companies, television stations, cable operations, and corporate video departments.

Entries are judged against a high standard of excellence, not against one another. The winner of a Telly receives a silver statuette perched upon a base. Finalists receive a bronze statuette.

There are several categories in which to win an award:

- a local commercial that has appeared in one market. Local commercials may have run on broadcast television or on local cable.
- a regional TV or Multi-Market cable commercial that has appeared in two or more markets. Spots which have run on a national cable system are eligible.
- non-Broadcast Film/Video Productions and TV Programs.

Awards are chosen on a 10-point basis. Judges are top production professionals.

Optical Audio Productions is proud to announce that two of its video productions have been awarded Bronze Tellys. Telly Awards are presented each year to exemplary non-broadcast video productions.

The first Telly was presented to *Louisville*, a one hour historical documentary on Kentucky's largest city. Produced for the city of Louisville by **Jacoby Communications and Optical Audio Productions**, it also won the **Professional Video Association's Prova Award** as the best one hour documentary.

Quality of Life, an eleven minute promotional tape produced for **Fort Collins, Inc.** by Optical Audio Productions, was also awarded a Bronze

Telly. A remake of the original tape which received an **Award of Excellence** by the **American Development Council** when it was produced in 1988.

Optical Audio Productions has been awarded a total of seven Bronze Tellys and one Prova in the past four years.

Congratulations to **Mike Khoury** of **Optical Audio Studios**.

Gardy McGrath International, Inc., a full-service video production company located in Reston, VA recently received three Telly Awards for excellence in animation.

All three animations were completed on Lightwave 3D software and rendered on the Raptor.

GMG was awarded a Silver Telly for the intro to a promotional piece for *The Dream Network*, a new urban inspirational cable network. **Peyton Duncan**, director of the animation department, created the spot. It features a dove soaring a city skyline at night. It flies to a torch, setting off the torch's explosive fire, illuminating the tops of buildings to spell The Dream Network.

GMG also won a bronze Telly for designing a logo for *Capital News Network*, a Washington, DC based news network broadcast to eighty outlets throughout the country. It features the Capitol dome integrated with a surrealistic spinning globe in Lightwave 3-D, and rendered on Raptor with Screamer Net software from NewTek.

The third Telly was a bronze for **C.P. Claire**, a New England manufacturing company.

Dave Gardy, president of GMG, noted "The RISC-based processor component greatly accelerates our turn-around time for complex pieces. It is truly a phenomenal machine."

Video Management Systems (VMS), an Indianapolis based production company recently brought home three bronze Tellys.

Two productions were for Park Avenue Productions. *"The Art of Effective Communication"*, and *"Skills Education"* are two short videos designed to educate high school students. *"Steam Trains, How They Work"* was the third production.

Frank DeFede, owner of Technimedia, a Stuebenville, OH production company, recently was awarded two Bronze Tellys. In the Educational Video category, Tech Prep and Industrial Technology was chosen. In the safety category, *"Cosigner Rights"* was a winner. *"Cosigner Rights"* was also presented with a State Award of Excellence at the Ohio Lifesavers Conference.

But that was not all that Technimedia won.

Education Associates, Inc. (EAI) of Frankfort, KY keeps Frank busy. Busy making videos and busy winning awards, that is. With Shelly Mauer of EAI serving as Executive Producer, Technimedia won the a Bronze Plaque for *Positive Attitudes: Success in Getting a Job* at the 42nd Columbus International Film & Video Festival. The National Educational Film & Video Festival gave EAI a bronze apple for *"A Dropout's Life: Go Back to Your Future"*.

"Proms and Pacifiers: Teens as Parents" was a Blue Ribbon Winner at the American Film and Video Festival. A recruitment video for VALEES (Valley Association Education for Employment System) won "BEST OF THE BEST" by the Illinois Vocational Educational Consortium.

The ABC-CLIO bestowed twelve honors to Technimedia produced EAI videos. Five were Four Star Winners: *"Problem Solving in the Job World"*, *"Attendance: An Employer's Expectations"*, *"Teens Decisions For a Lifetime"*, *"Find The Job World"*, and *"Follow My Instructions"*. Seven more were awarded Three Stars: *"Teens, Temptations, Troubles"*, *"Checking and Savings"*, *"Job World Literacy"*, *"Skills for Living Alone"*, *"Phonework: Lifeskills"*, *"Phonework: On the Job."*, and *"Apartments for Rent"*.

These tremendous successes inspired EAI to renew their contract with Technimedia for fifteen more videos. EAI is nationally known for their quality educational products in the arena of Employability Skills, Work Maturity Skills, Life Skills, At Risk Skills, and Drug Education.

SUMMER INTERNS AVAILABLE!!

Question: What has 5 full MII on-line suites, 8 MII camcorders, 3 MII cuts-only suites, a digital audio workstation that lays audio back to MII, 7 Video Toasters, a Steadicam EFP and much, much more?

Answer: The Savannah College of Art and Design, one of the best equipped colleges in the USA, and certainly the largest MII teaching facility.

Obviously our students are trained on the best Panasonic equipment in the world, and as students, they are eager to work as a summer intern in your MII production facility. Students at SCAD come from all over the 50 states and would be in an internship in their home state.

Interested? Contact John Drop, Video Department Chair,
call at (912) 238-2407
fax (912) 238-1456
or write to
SCAD Video Department
235 Habersham Street
Savannah, GA 31401

PANASONIC MII TRAINING VIDEOS

NOW AVAILABLE!!!!

This set of three 30 minute videos feature preventive maintenance, troubleshooting, applications overview, upper drum replacement, and basic service procedures. Specifically, items covered include the following:

(I.) PANASONIC MII EQUIPMENT TRAINING-LESSON I

RECOMMENDED CLEANING AND MAINTENANCE PROCEDURE

Sections-

- 1.0 - Upper Drum
- 2.0 - AC Head Stack
- 3.0 - Field Cleaning the Portable Unit
- 4.0 - Tape Path
- 5.0 - Cleaning the Pinch Roller
- 6.0 - Cleaning the Capstan
- 7.0 - Cleaning the Posts
- 8.0 - Cleaning the Fixed Posts
- 9.0 - Brush Assembly
- 10.0 - Cleaning the Earthing Assembly
- 11.0 - Final Disassembly and Cleaning
- 12.0 - Emergency Tape Unloading Procedures
- (+ Conclusion)

(III.) LESSON 3 APPLICATIONS AND OVERVIEW (Including basic troubleshooting)

Sections-

- 1.0 - Introduction
- 2.0 - Stand Alone Single Machine Configuration
- 3.0 - Machine to Machine (cuts only applications)
- 4.0 - A/B Roll Editing Systems
- 5.0 - MII Menu and Setting Instruction

(II.) LESSON 2 UPPER DRUM REPLACEMENT AND ELECTRICAL ALIGNMENT

Sections-

- 1.0 - Cleaner Roller Removal
- 2.0 - Mounting of Fixing Plate for Tip Protrusion Gauge
- 3.0 - Video Head Tip Protrusion for Measurement
- 4.0 - Removal of Upper Drum Assembly
- 5.0 - Upper Drum Re-assembly
- 6.0 - Eccentricity Gauge Adjustment
- 7.0 - Simplified At "x" Valve Adjustment



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**ALL PROCEEDS BENEFIT USER ASSOCIATION ACTIVITIES.
IF YOU HAVE ANY QUESTIONS ABOUT THE TAPES PLEASE
CALL THE USERS ASSOCIATION AT 1(800)966-1030,
1(703)620-6000, OR FAX YOUR REQUEST AT 1(703)620-0451
24 HOUR FAX LINE**

(Virginia residents must add 4.5% sales tax to all orders.)

Authorized Panasonic Dealers/Repair Centers

The following is a current list of authorized Panasonic Dealers Who have sponsored the MII Users Association with contributions of \$250.00 We appreciate their support and urge all users to support them in return!

Northeastern

Advanced Video Systems
19 Roots Lane
Owego, NY 13827
(607) 687-0545

Alleghney Electronics, Inc.
800 Chestnut Ave.
Altoona, PA 16601
(814) 946-0871

Colortone Camera, Inc.
76 S. Central Ave., Rte. 9A
Eimsford, NY 10523
(914) 592-4151

Communications Televideo
9301 Georgia Ave.
Silver Spring, MD 20910
(301) 585-6311

Crimson Camera Tech Sales
325 Vassar St.
Cambridge, MA 02139
(617) 868-5150

DSI Video Systems, Inc.
627 Boulevard
Kenilworth, NJ 07033
(908) 245-4833

Eastern Video Systems, Inc.
2 Sterling Rd.
Billerica, MA 01862
(508) 667-0009

High Fidelity House, Inc.
1001 Sussex Blvd.
Broomall, PA 19008
(215) 544-4420

Washinton Professional
Systems, Inc.
11242 Grandview Ave.
Wheaton, MD 20002
(301) 942-6800

Quail Video Productions
924 Penn Ave.
Pittsburgh, PA 15221
(412) 243-1300

R.P.C. Video, Inc.
384 Route 909
Verona, PA 15147
(412) 243-1300

Seneca Communications Inc.
1321 Dunbar Ave.
Dunbar, WV 25064
(304) 766-8740

Specialized
Communications
907 Maryland Ave.
Hagerstown, MD 21740
(301) 790-0103

Tri-State Video Services,
Inc.
1379 Pittsburgh Rd.
Valencia, PA 16059
(412) 878-1630

Videoplay Industries, Inc.
RT30 Tolland Ind. Park
Tolland, CT 06084
(203) 872-9195

Midwest

Alpha Video & Audio, Inc.
7711 Computer Ave
Edina, MN 55435
(612) 896-9898

Avonix Video Ayatems,
Inc.
3495 N 124th St.
Brookfield, WI 53005
(414) 783-6050

B&J Photo, Inc.
525 North Main St.
Findley, OH 45040
(419) 424-0903

Beatty TeleVisual, Inc.
1287 Wabash Ave.
Springfield, IL 62704
(217) 787-4855

Communications System
Group
13355 Capitol Ave.
Oak Park, MI 48237
(810) 399-2000

Full Compass Systems,
Inc.
5618 Odana Rd.
Madison, WI 53719
(608) 271-1100

Industrial Broadcast
Services
5436 W. Mingo, Suite F
Tulsa, OK 74146
(918) 663-5126

Industrial Video, Inc.
1601 N. Ridge Rd.
Lorain, OH 44055
(216) 277-1218

Klaus Radio, Inc.
8400 N. Allen Rd.
Peoria, IL 61615
(309) 691-4840

Lines Music Company
219 S. Jefferson
Springfield, MO 65806
(417) 862-5533

Modern Communications,
Inc.
1733 Larkin WMS Rd.
St. Louis, MO 63126
(314) 343-0800

Pratt Audio Visual/Video
Corp.
200 Third Ave., SW
Cedar Rapids, IA 52404
(319) 363-8144

Professional Video Supply
9300 W. 87th Terrace
Overland Park, KS 66212
(910) 642-5528

Swiderski Electronics
1200 Greenleaf Ave.
Elk Grove Village, IL 60007
(708) 364-1900

TV & Video Service (KEY)
14121 "S" St.
Omaha, NE 68137
(402) 895-3100

Thalner Electronics Labs, Inc.
7235 Jackson Rd.
Ann Arbor, MI 48103
(313) 761-4506

Todd Communications
6545 Cecilia Circle
Minneapolis, MN 55435
(612) 941-0556

West

Accent Audio-Video
13616 Neutron Rd.
Dallas, TX 75244
(214) 458-0501

Audio Visual Supply, Inc.
4575 Ruffner St.
San Diego, CA 92111
(619) 565-1101

E.C.I Video
2809 Ross Ave.
Dallas, TX 75201
(214) 969-6946

Electronic Design &
Service
6922 San Fernando Rd.
Glendale, CA 91201
(818) 843-6199

Industrial Broadcast
Services
5436 W. Mingo, Suite F
Tulsa, OK 74146
(918) 663-5126

IVS
7925 Auburn Blvd.
Citrus Heights, CA 95610
(916) 725-6600

Lubbock Audio Visual
Co., Inc.
2120 Avenue Q
Lubbock, TX 79411
(806) 744-2559

Metrovionics, Inc.
3808 Catlina Ct.
Los Alamitos, CA 90720
(714) 827-4580

PCI, Inc.
1595 West Amador, Suite
H
Las Cruces, NM 88005
(505) 523-7788

Professional Video &
Tape, Inc.
10240 SW Nimbus, Suite
L11
Tigard, OR 97223
(800) 833-4801

Studio Spectrum, Inc.
1056 N. Lake St.
Burbank, CA 91502
(808) 843-1610

Troxwell Communications
4030 South 38th St.
Phoenix, AZ 85040
(602) 437-7240

Tulsa Electronic Systems,
Inc.
4727A So. Memorial
Tulsa, OK 74145
1-800-322-9220

1-800-322-9220

TV Specialists, Inc./Video
180 East 2100 South, Suite 104
Salt Lake City, UT 84115
(801) 486-7555

Video Store, Inc.
2601 McHale Ct. #140
Austin, TX 78758
(512) 837-2000

Video Systems Service Center
23322 Peralata, # 3
Laguna Hills, CA 92653
(714) 855-1082
(Repair Only)

Video Technical Services, Inc.
222 Truman NC
Albuquerque, NM 87108
(505) 265-4045

Vidicomp Distributors Inc.
232 W. 38th St.
Houston, TX 77018
(713) 694-6400

Waterford Group (The)
307 Orchard City Dr. Ste. 102
Campbell, CA 95008
(408) 374-8550

Southern

Allied Communications Corp.
1650 Elm Hill Pike, Suite 1
Nashville, TN 37210
(615) 391-5500

AVEC Electronic Corporation
2002 Staples Mill Rd.
Richmond, VA 23230
(804) 359-6071

Custom Supply, Inc.
2509 5th Ave. South
Birmingham, AL 35233
(205) 252-0141

Delta Electronics
dba Delta Media Systems
1406 Terry Rd.
Jackson, MS 39204
(601) 969-2929

Electric Image Media Systems
3409 NW 9th Ave. Ste 1104
Ft. Lauderdale, FL 33309
(800) 422-9323
(305) 537-9323

Florida Video Systems
14422 NW 7th Ave.
Miami, FL 33168
(305) 688-6618

Galjour Electronics Corp.
dba Crescent
2744 Marietta St., Suite 2

Kenner, LA 70062
(504) 466-4454

Gendra Broadcasting Corp.
2800 Biscayne Blvd., Suite 700
Miami, FL 33137
(305) 372-8845

H. B. Centennial
2500 NW 39th St.
Miami, FL 33142
(305) 633-2200

Long Communications Group, Inc.
96 Burke St.
Winston-Salem, NC 27101
(919) 725-2306

Mission Service Supply
Drawer 2957
900 Wood St.
W. Monroe, LA 71294
(318) 325-8674

Professional Communication Systems
5426 Beaumont Center Blvd. #35
Tampa, FL 33634
(813) 888-5353

Showcase Inc.
2323 Cheshire Bridge Rd. NE
Atlanta, GA 30324
(404) 325-7676

Sports-Tech International, Inc.
6300 N.W. 5th Way, Ste 150
Ft. Lauderdale, FL 33309
(305) 772-9155

Technical Video Systems, Inc.
215 N. Broad St.
Winston-Salem, NC 27101
(910) 748-0916

Total Audio Visual Services
811 Marietta St.
Atlanta, GA 30318
(404) 975-7555

Video Production Systems, Inc.
8875 N.W. 23rd St.
Miami, FL 33172
(800) 666-1699

W.H. Platts Co.
234 Meacham St.
Charlotte, NC 28203
(704) 332-9053

Whitlock Computer Co.
4120 Cox Rd.
Glen Allen, VA 23060
(800) 745-9201

Have you returned your membership registration form and \$25.00 dues?

If you have not, please do so immediately!!! *Make checks payable to the MII Users Association of America.* Return form (found on page 2 of this newsletter) and payment to:

MII Users Association of America
c/o Gardy-McGrath (Int'l), Inc.
1950 Roland Clarke Place, Suite 100
Reston, VA 20091
(703) 620-6000 or 1-800-966-1030
Fax: (703) 620-0451 □

MII Job Shop

Electronics Technician, Experienced and entry level positions available. AA in Electronics required. Work on Broadcast MII video tape machines and camera. Some transmitter work. Drug screen required. WHAG-TV is a small market NBC affiliate. We offer a comprehensive benefit package, including 401K and section 125 plans. Send resume and salary requirements to personnel, WHAG-TV, Dept. M, 13 East Washington Street, Hagerstown, MD 21740. No phone calls. EOE.

Send resumes and sample tapes to the Association. Please state which position you are interested in.

All responses will be kept in strictest confidence. □

MII Duplication Facilities

If you are a duplicator and you are an MII User, the Association needs to know about it.
Currently our list includes:

Action Duplication

Conshocken, PA 1(800) VHS-DUBS
Action Video Productions
Greenville, SC
(803) 297-8865

Alpha Video & Audio, Inc.
Edina, MN (612) 896-9898

American Production Services
Seattle, WA (206) 282-1776

Advanced Audio Video Denver, CO
800-368-0406

American Magnetic Media
Denver, CO
800-USA-TAPE

AME N. Hollywood, CA
800-336-3827

Avon Productions
South Plainfield, NJ
(908) 756-0643

Bennu Productions New York, NY
(212) 213-8511, Wayne Keeley

Broadcast Video Products
480 Main St Armonk, NY
(914) 273-6649, Jack Miller

Cassette Dub Inc. Northvale, NJ
(201) 767-7077

CenterCom, Inc.
Milwaukee, WI (414) 353-2001
Lincolnwood, IL (708) 675-1411
Tampa, FL (813) 886-8266

Commercial Video
101 Winston St.,
Cumberland, MD 21502
(301) 724-2799, ask for Greg.

Commonwealth Films
Richmond, VA (804) 649-8611

Copymaster Video Villa Park, IL
(708) 279-1276

Cinequipt St Paul, MN
(612) 646-1780

Creative Visual 10135 J St.,
Omaha, NE 68127
800-547-4184, ask for Larry.

Curtis Inc. Charlotte, NC
800-733-2878

Curtis Inc. Cincinatti, OH 45202
800-733-2878

ECI Dallas, TX
800-880-9400

Elite Video Production
Brooklyn, NY (718) 627-0499

Global Vision Reisterstown, MD
(301) 356-6715

Group Video Productions
Sacramento, CA

1-800-748-4982

HAVE, Inc. Hudson, NY
(518) 828-2000

Industrial Audio Video
Houston, TX
(713) 535-2375

Industrial Communications
Birmingham, AL
(205) 942-0132

International Video Center
2528 Edgemoor Rd
Cleveland Heights, OH 44106
(216) 321-1440

Juntunen Video Minneapolis, MN
(612) 341-3348, Mike Vinup
MagneTech Ft. Lauderdale, FL
800-683-DUPE

Majestic Video Burbank, CA
(818) 843-1806, Cliff Sawyer

Master Images Video Duplication, Inc. Wheeling, IL
(708) 541-4440

Media Concepts St. Petersburg, FL
(813) 321-2122, 800-330-3873

Multi-Magnetics Denver, CO
(303) 825-7768

Network Video Services
Alexandria, VA
800-289-DUBS (3827)

Park Avenue Productions
Richmond, VA
(804) 346-3232

Preston Trucking Preston, MD
(410) 673-2930

Pro Line Video Austin, TX
(512) 837-2000 x30

Quinn Productions
Winston-Salem, NC
(919) 768-2746

Sign Media, Inc. Burtonsville, MD
(301) 421-0268

Shooby-Dooby Duping Orange, CA
(714) 744-4041, Terrence West

Televent Video Services
Oak Park, IL
(708) 383-5588

Tri-State Video, Valencia, PA
(415) 898-1630, Jim Wachtel, Lori Keffalas

USF&G Corporation
Baltimore, MD
(410) 578-2916, Steve Kuhn

Vaughn Communications:
Minneapolis, MN 800-323-0281
Creve Coeur, MO (314) 576-6804
Phoenix, AZ 800-228-7609
Milwaukee, WI (414) 276-6511
Tampa, FL 800-252-7564
New York, NY (212) 447-1038
Portland, OR 800-772-2251
Atlanta, GA 800-966-0859
Irvine, CA 800-228-7609

Video Duplication Atlanta, GA 800-235-9732

Video Duplication Services Columbus, OH 800-289-4301
Dayton, OH (513) 294-5883
Cleveland, OH (216) 741-3827
Youngstown, OH (216) 792-3827
Detroit (Troy), MI (810) 680-9100

Video Management Systems
Indianapolis, IN
(317) 639-6163

Video on Location
Rockville, MD
(301) 984-5823

Videoland Lacey, WA
(206) 491-1332

Video Now 610 S. Central Ave.
Kent, WA
(206) 852-1186

VideoPlay Industries Rockville, CT
(203) 875-5211

Video Proofs Rohnert Park, CA
(707) 586-0383

Video Replay Chicago, IL
(312) 467-0425

Video Techniques, Inc., Bradenton, FL
(813) 746-4949

Video Transfer Rockville, MD (301)
881-0270

Vidicomp Distributors
Houston, TX
(713) 694-6400

VIP Duplication 2908 Cameron St.,
Suite-B, Monroe, LA 71201
(318) 322-8222, Phillip Nelson

VU Video Denver, CO
800-637-4336, Eric Wheeler
Wilderness Productions
S. Lake Tahoe, CA
800-874-7488, in CA (916) 577-3008

WGVU/WGVK-TV
Grand Rapids, MI
(616) 771-6666, TDD 800-748-0488

WPSD-TV Paducah, KY
(502) 442-8214, Bob Fesmire

Your Video Productions
Costa Mesa, CA
(714) 645-9687

Canadian Duplicators:

Agincourt Productions
Richmond Hill, Ontario
(416) 886-8273

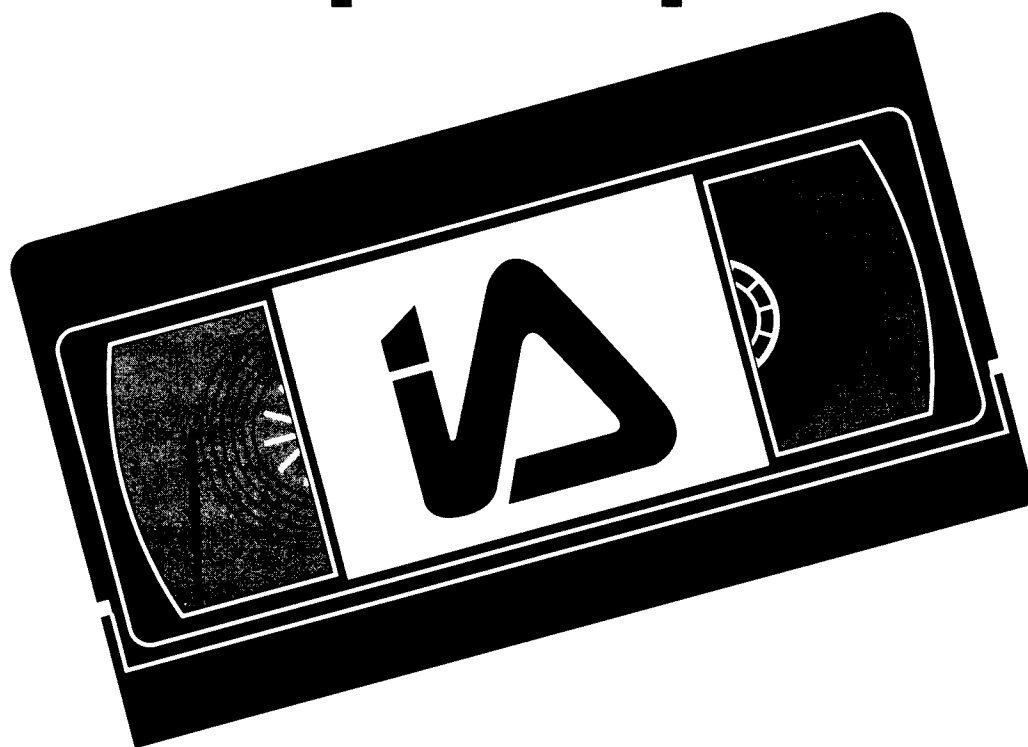
Inter-cite Video Montreal, Quebec
(514) 342-4545

Lynx Video Production Toronto, ON
(416) 516-0270, Jim Blake

Marine Video 1955 Wylie St.
Vancouver, B.C. V5Y 3N7

If your company isn't listed here, please call 1-800-966-1030. □

Your Source for MII Video Tape Duplication!



Specializing in the Following Formats:

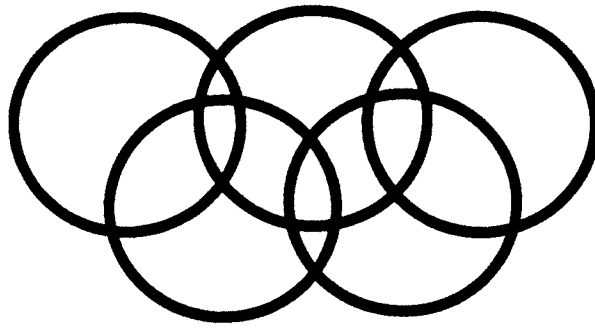
NTSC		PAL, SECAM
M II	VHS	VHS
1"	S-VHS	S-VHS (Playback)
Betacam SP	Betamax	Betamax
Hi 8		Hi 8
3/4" SP		3/4" (lo-band)

Rush Orders — No extra Charge

Call Travis Franklin, Duplication Operations Manager, for a complete quote today!

Industrial Audio/Video, Inc.

2617 Bissonnet • (713) 535-2375 • In Texas 800-392-4384 • Fax (713) 524-2823
Hours: Monday – Friday: 8-5



ACC

Atlanta
Communications
Complex

FACT The 1996 Summer Olympics in Atlanta, Georgia are considered the greatest marketing event ever.

UNDERSTOOD Businesses that support television production can ride the wave of financial gain from the requirements generated by the world's army of technical people and the services they generate that will need to be satisfied.

OPPORTUNITY The Atlanta Communications complex (ACC) is coordinating the combined requirements of numerous television production associated businesses into a centrally located support facility. This association will be marketed for the combined advantage of all participants and will be universally recognized as the

Television Services Village (TSV)

INTERESTED? More info and details available

Fax (404) 350-0302

Fax preferred, Attn: Joe Gora (phone (404) 355-3553)

MII Trading Post

Please contact us when the equipment is sold!!!

Equipment Wanted

Wanted: AU-TB50, AU-66 Studio Deck. Cash. Call Kevin at (310) 281-7599.

Wanted: Used MII Tapes. Any length. Contact Jamie Dotson. (800)842-4273. 1/95

Wanted: Panasonic MII Camcorder Model WV-F500 and AU 45 Back-Send cash price and condition. Bob Benson Video Film. (508) 432-1200. 1/95

Wanted: Panasonic AU-550 Field MII editing VCRs. Any condition.

Spare Parts Inventory for AU-550, especially printed circuit boards. Contact Jonathan Meyers at (612) 642 4637. 12/94

Wanted: PC video card that will render *.TGA files at NTSC 720 x 486 resolution or greater. Needs Component or RGB outputs. Call Gary Dansie, Options Inc. (801) 467-7421. 11/94.

Wanted: Amiga 2000/2500. Need CPU, will consider some extras-cheap. Also want rear-screen fabric or panel, 4"x6" or larger; Panasonic interfaces for IVEs II. Contact Steve Braker at (608) 251-8855.

Wanted: MII player and Sony 5850 recorder. Call Peter at (818) 888-8673.

Wanted: Alamar 1055 and SC 2000's, used or new, Call John Bishop (704) 398-0046.

Wanted: Amiga Computers & related hardware, as well as used working prosumet video equipment. Copperhead Technologies. (518) 346-3894.

Equipment for Sale

Panasonic AU55H MII field recorder/editor. Practically brand new, less than 75 hours of use. Never left the studio, barely used. Spotless original box with AUB 110 power supply. Works flawlessly, beautiful picture and sound. \$10,000 make offer, quick cash carries weight. Contact Geltner at Stuart Geltner Media 100 Editing Services, (505) 820-0696.

Amiga A2000 Computer, Kickstart 1.3, 1 low density floppy disk drive, 1 meg chip ram, keyboard & mouse. Upgrades available. \$400.00. **Amiga A500 Computer.** New in factory sealed case, Rev. 6.0 motherboard, 8372A 1 Mes Angus, Kickstart 1.3, mouse keyboard, power supply docs/disks. **Amiga A2065 Computer.** Commodore. A2065 Ethernet Networking cards for A2000/3000/4000 Systems. \$189. Call Bill Tucker at (518) 346-3894.

Portable MII Panasonic AU-520 SP. Bought B-stock for \$7,500 - selling for \$6700. Fully tested and in excellent condition!! Pro-portabrace case, two batteries plus AC/DC converter-recharger additional \$450. Must sell as unit. Total \$7,150 + shipping. Call Tom Miller at (406) 222-6733.

AU - 660 Recorder/Player , \$3100. TM-90U Color Monitor 2 channel w/ multi pin RGB input, \$200. Contact Dan Hall at Video Management Systems. (317) 841-1212

Panasonic AU650 MII Video Recorder with slo-mo dynamic tracking, time code, and time base corrector. Breakout boxes and service manual included. Excellent condition. Used in research lab converting to SVHS system. \$5,000 or best offer. 3 New 90 minute tapes, \$60 each, 15 used tapes with low passes and factory cases -\$20 each. Contact Wiltz Wagner at (317) 274-1436.

Magni Monitor. Both a waveform monitor and a vectorscope for both composite and component. Displays on your monitor. \$1,200.00. **Sony RM 450.** Edit controller in perfect shape. Manual included. \$1,100.00. **Sony DME 450.** Digital video special effects. Works with Sony RM 450 controller. No TBC needed. Service manuals included. \$1850. **Newtek Toaster.** Amiga 4000, 040 board, 430 meg HD, 18 meg ram, Toaster 4.0 software, Nucleus Personal Editor software and hardware, 8 bit sound card, 1960 monitor, ready to drop your Flyer in. \$6,500.00. **Hotronics AE-61.** Nice basic stand alone TBC. Great for dubbing set-up. \$500.00. Call Mike at 1 (303) 484-5535.

Everything must go! (1) Tektronix TSG-130 Generator; (1) Panasonic AU-63 Studio Player with Auto Tracking, TC Reader Generator, 520 drum hours; (1) Panasonic AU-62 Studio Player with TC reader/GGenerator, 470 drum hours; Panasonic AG-7750 S-VHS Edit Recorder with TC reader/generator; (1) Panasonic AG6400 Portable Recorder, @3500 hours; Panasonic D5000 Industrial Camera with ENG Kit; (2) Panasonic AG-1950 VHS Editing Recorders with AG-A95 Editing Controller; (d1) BT-S700N Panasonic Portable Monitor with Portabrace MO8020 case; (1) Bogen 3050 Tripod with fluid head; (1) Commodore Amiga 2000HD computer with 8 Meg RAM, Mega Chip 200, Broadcast Titler 2, Pro Video Post, Deluxe Paint II Programs, Progressive Image Super Gen, 1084S Monitor; (1) Tascm Porta-One Multi-Track Audio Recorder; Tascam M-106 6 Channel Audio Mixer; (2) Panasonic AU-410 Dockable recorders with timecode and docking adapters; (1) Panasonic WV-F250H Cameras with Wv-Vt15 MII docking adaptors, WV-VF39 1.5" viewfinder, WV-QT70 tripod adaptor, WV-MC35 electret condenser microphone, Anton Bauer AB-13 battery bracket, Canon PH15x7 BIRS Lens w/2x extender, Thermodyne CC-440 hard case, Portabrace RS250/5 rain slicker, and Portabrace CC-250-22 Quick Draw case. Package Price \$46,000!! Call Pronghorn Productions, (307) 332-9714. 9/95.

JVC KY-210B 3 Tube Camera. Burned tubes(s)/Parts camera. Hard case. Works like new! Make offer. Buyer pays all shipping. Contact Jodi Heuring at (612) 935-0033.

JVC, BR-S777V, S-VHS, VHS, Three-In-One Duplicator with RM-7030 Remote Control and Rack Mount Hardware. Very Low Hours. Mint Condition. \$2,995 including shipping. Call Doris (516) 285-7146.

AU-63 with AT. Very low hours. \$4995. **AU60 Studio Recorder.** Excellent condition. \$4995. Call Tom Whaley at (419) 621-060. Sandusky, OH. 6/95.

SANYO Factory Demo. GVR-S955 S-VHS editing VCR's with built-in LTC timecode reader/gen., BCD animation RS-232 controller, Sony protocol RS-422 edit control port, 55 db digital video noise reduction, frame accurate, 4 ch. audio input switcher, 2Y-C & 2 composite video inputs, \$1,595.00. (List price new \$3,495). Package deals available with FAST Video Machine, TAO Editizer, and/or Alladin 3D DVE. Complete turn-key computer systems, SCALL. DPS PAR and Perception boards, 3D Studio, Animator Studio, Topas Prof., Flying Fonts for Windows, Lightwaves 3D, SCALL. DSC Chyron Illusion #D DVE loaded, \$3995.00. WIEGAND AUDIO VIDEO LABS. (800) 203-3260 or fax (614) 967-4453.

TAO Editiaer 3.1 A/B Controller. Works on any PC or better. Works with professional & pro summer decks. Generates & reads SMPTE time code. Controls Toaster, MX50, ALAden, and many more switchers. 7 GPI. EDL management, creates logs, time line, or edit on the fly. Much more. \$1500.00. Hawaiian Image Video Productions. Ron Darby (808) 531-5474.

Panasonic AU-650 MI Excellent Condition. Well Maintained. 4 Channels of Audio. Time Code. Slo-Mo Dynamic Tracking. 2 machines. \$5500 each. **Panasonic AU-60 MII Studio Recorder.** Works great. Well maintained. 4 Channels of audio. Time code. \$4900. **Panasonic 200CLE 3 Chip Camera** in very good condition. \$2900. **Grass Valley Mod 1600-IX Switcher.** \$3900. Very good condition. Comes with very long snake for remote mounting. Brian at (716) 654-7110.

AU-62H Player, AU-63 Player w/Dynamic Tracking QU-65 Recorder/Player, AU-55H Portable Recorder, JVC KY-27 Camera (Includes: Fujimon 16:1 Lens, MII Back, Studio Kit, JVC RMP-2000 Remote Control, Cables, 8 Batteries, Charger/AC Adapter Bogen Tripod and Plate). All equipment in excellent condition and priced to sell. Please call Digital Arts (210) 692-1776.

JVC KRM-800U Edit Recorder, \$2900. Or trade JVC-BRS-811U Edit Recorder/SAF-911. JVC Editor in Good Condition. KRM-800U. Call Kevin Boland at Electric Images Video at (805) 937-3196.

Amper ADO-1 - DVE 3D Option & Upgrade Software, \$16,000. O'Conner 50 Fluid Head Tripod w/ spreaders, \$975.

JVC KM-2000 Switcher, \$975. Panasonic 3/4" AB Roll edit system w/3-AU-700's AUA-70 & AU-J-10, \$2200. Barco Graphics Data

Projector, scans to 70KHz, \$3500. Tektronix 528 & 1420 Waaveform Monitor & Vectorscope, \$1800. Adda VW-2 TBC/SYNCH w/genlock, infinite window, & freeze, \$875. Gibson Parabolic Mic - picks up voices up to 1/2 mile away, \$175. RGB Encoder (RGB/s to NTSC), \$200. Ikegami ITC - 350 3 tube saticon w/10:1 servo lens 7 macro, \$600. Keldon Copy Stand, \$195. Plus full production & rental equipment - send for full list. Owner retiring! Contact Bob Pooler @ (617) 862-2477.

NEC SP3A Camera docked top Panasonic AU400 MII Recorder. 3-Chip (similar performance to Sony BVP30). Excellent condition. 600 hours on deck, porta-brace case, Anton-Bauer bricks and charger. Package priced \$5500. OBO Panasonic AU400 Dockable recorder (plus adapter to Sony/NEC cameras) four channel field recording and in the field playback (without an adapter!) - 600 hours on deck, great shape, recently aligned. \$2500. OBO. Panasonic AU500 field recorder/player. Four channel field recording/playback. Will work as a source deck in edit system. Timecode in/out. New Porta-brace case. Adapter for Anton Bauer bricks. Very good condition. Recently aligned. \$2500. OBO. JVC-KRM 800 MII studio edit recorder. Less than 50 hours on new heads. Zero hours on complete factory service center realignment. Deck is in excellent mechanical condition. \$3500. OBO. NEC SP3A 3-Chip Camera. High performance 2/3 chip block. Will dock to any Panasonic MII or Sony Betacam product. MII adapter included. PortaBrace case. Anton-Bauer brick adapter. Camera recently overhauled by NEC factory service center. Performance similar to Sony BVP30. Excellent condition. \$3500, OBO. Contact Rick at Gulfstream Production Group (813) 522-3000.

AUW-32 MII Player, AU-33H MII Player w/ Dynamic Tracking, AUW-35H MII Editor. All units "like new" from NAB Las Vegas Show. Also, AU-45H MII Dockable Recorders all at BIG SAVINGS!!! Call Jim or Don at (412) 898-1630.

Panasonic AU-410s recorder docked to Panasonic 300CLE camera, without lens, excellent condition \$6400. Call Don at (613) 821-7783.

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If you have equipment you would like included in the next Trading Post, please contact us in writing, either by fax or mail at MII Users Association of America, c/o GMG International Inc., 1950 Roland Clarke Place, Suite 100, Reston, VA 22091, fax (703) 620-0451, toll free 800-966-1030. *Please contact us when the equipment is sold.* □

Association Membership

If you are not currently a member of the MII Users Association of America and are interested in joining. Please fax or mail us the following information: company name, contact persons name, mailing address, phone and fax numbers (if available), if you do or do not have MII and which machines (make & model) you have. We may be contacted at:

MII Users Association of America
c/o GMG International, Inc.
1950 Roland Clarke Pl., Suite 100
Reston, VA 22091

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or call toll free at 800-966-1030. □

????????????????

· This question came in to us...

USED MII TAPE ???

There have been many used tape salesmen calling lately hawking, among other tape formats, MII. Our small public television station purchased six AU-65 MII machines a little over a year ago to delay playback of programs sent from PBS by satellite. The significant cost reduction offered by these used tape companies has seduced my budget into testing these waters. We would be interested to know if any other MII users have experience with used MII metal tape. Is there any noticeable machine wear of pitfalls experienced with this used tape? Are there any special "flags" to watch for with the used MII tape? What is the expected life of MII metal tape anyway? So far, all the tape we have received has been Panasonic tape.

If you have any information or resources on this subject you would like to share with me, I can be reached at:

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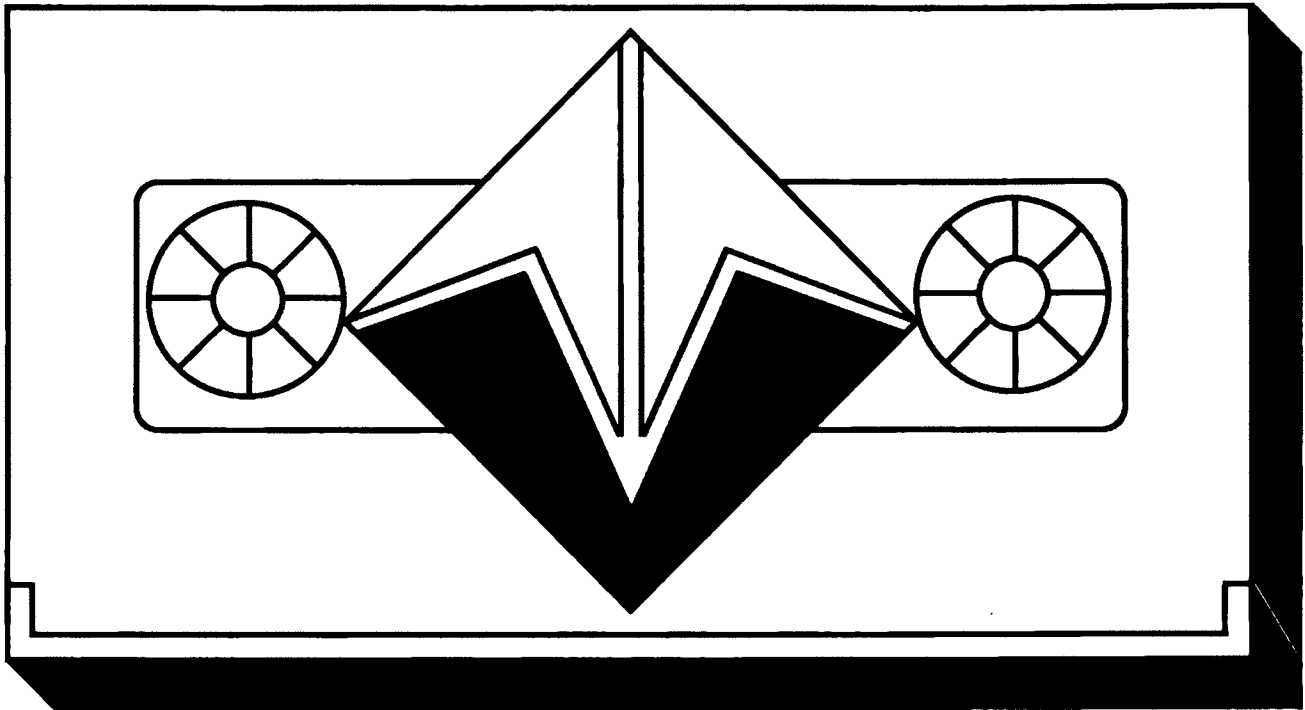
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The KREGEL Report

Mark Kregel is owner of KTS Television & Film in Aberdeen, MD. He is a recent TV Production/Filmmaking graduate (Mass Communication) from Towson State University in Baltimore. During college, he completed internships at both Maryland Public Television and the Discovery Channel. He is currently building an MII edit suite for the production of TV broadcast documentaries.

Editing Systems: A Comprehensive MII Overview Part Two

In last month's article (Part I: A Comprehensive MII Overview), we presented an overview of the dominant video tape formats and defined four broad categories (levels) of tape format quality. These levels were: consumer, industrial and corporate, broadcast NTSC, and broadcast HDTV and beyond. Additionally, into these categories we placed the following video tape formats - Consumer: VHS, 8mm, Beta. Industrial/Corporate: (primary) SVHS, Hi8, Umatic (also) UmaticSP, BetaCam. Broadcast NTSC: (primary analog) BetaCamSP, MII, i" (primary digital) D-1, D-2, D-3, D-5, DCT, DVCPRO, Digital S, Digital BetaCam. Broadcast HDTV and beyond (D-1, D-5, DCT). Also last month we touched upon the use of disk storage for video production systems. In this month's article we will touch upon how these various tape formats can be integrated into various editing systems, and how to achieve and maintain a desired system quality level while building such a system.

A large video production project involves many steps. Some of the more common titles

associated with these steps are as follows: planning, story-boarding, scripting, budgeting, producing, post producing, off-line, on-line, etc. However, in terms of hardware, we can boil video production down into 3 basic phases. These in their most basic form are acquisition, editing, and distribution. In acquisition we go to a field or studio shooting location with a video camera system and we lock (record) our camera image signal into a storage medium (tape or disk). Editing involves taking this raw stored medium (tape or disk). Editing involves taking this raw stored footage and mixing it with other footage or tilting graphics, etc. to create a final video product. Distribution might involve anything from a VHS copy of the product to a 1" broadcast master or even a disk server version of the product. It is possible to start out with 1" type C studio based acquisition and to end up with a VHS final dub. It is also possible to take UmaticSP acquisition all the way through to broadcast. There are almost unlimited possibilities in building such video production chains.

In last month's article we talked about defining a specific quality level that you wish to work at with your video production construction. As an example SVHS/Hi8/Umatic quality is closely associated with industrial/corporate level work (although higher format use is common). For this SVHS/Hi8 level of quality, Y/C signal use is the norm, and in general you are working with about 400 lines of horizontal resolution. For maximum quality in broadcast NTSC type applications, you need to step up to one of the professional 1/2" formats (BetaCamSP or MII) or into the evolving digital tape formats. Here it is possible to take full advantage of YUV, Y, Pr, Pb or 4:2:2 component signal processing, and with proper care these formats are almost transparent to a camera putting out 750 horizontal line of resolution. When possible always build a margin of safety into your system

as you can always "work down" down to speak if needed. On the other hand it is basically impossible to "work up" into a higher quality levels than your equipment might currently allow. Such a situation would necessitate additional equipment purchases of having to go "out of the house." Having said this, let's delve a little more into the specifics of editing systems.

Some years back, a "state of the art" video editing suite consisted of two or more source decks (VTR's) to allow A/B roll (using a broadcast grade format), a record deck, an edit controller, a switcher, titling/graphics and keying related components, a wave form monitor, an audio board, and other mixed cabling and support equipment. In short you had a fairly large volume of rack mount equipment and such a system was both large and visually impressive. Please note that although I am speaking of these systems in the past tense, there are still countless such systems in existence, they are still the mainstay of the broadcast industry, and they are still the mainstay of the broadcast industry, and they still produce an extremely potent output in terms of signal quality. On the flip side of these traditional systems we now have the "new kids on the block", the "digital" and "nonlinear" based systems. These new systems in their most pure form consist of a single deck (VTR) sitting side by side a personal (or desktop) computer. The computer reads from the deck (VTR) as needed, puts this video information into hard disk storage, then edits material within the computer as desired (so called non-linear). As a final step the computer spits out the final product for distribution (either back to tape or otherwise).

For illustration purposes, let's now exaggerate two extreme points of view in determining which of the above systems to buy or build for your particular production needs. One of these extremes is to simply look at the hype, fancy print and catch phrases of modern video advertising. At this extreme you will be enamored by the latest "digital", desktop", and

"nonlinear" editing systems and this is not necessarily bad depending upon your needs. However, as a side note, two phrases that are very carefully omitted in these nonlinear advertising campaigns that you should definitely become aware of are "rendering time" and "signal quality loss through compression". Some of these nonlinear systems can take as much as 15 hours or more to render a 30 minute program at the SVHS quality level when dissolves and other fancy transitions are used. Also the use of compression is inherent in every major nonlinear system currently marketed. At the other extreme of making video system purchasing decisions you have the person who is obsessed only with system output quality. This person will want the best possible broadcast grade signal from his or her system for the money spent. At this extreme you will likely actually gravitate to the traditional linear edit system, especially if it is component signal based (color difference YUV or Y, Pr, Pb). Though dated, the output from these traditional analog format systems is still extremely high by most all standards, and few of the nonlinear desktop systems have yet to come anywhere close to reaching parity with most of these traditional systems (BetaSP quality and above). Where do you draw your particular line for your particular video productions needs? Let's look again at the video production chain acquisition, editing and distribution.

Acquisition involves recording your video signal (camera output) onto a specific recording medium. This medium has traditionally been tape, with the new alternative being disk. It is important to note here that the physics of recording onto both tape and disk is virtually identical (magnetic based recording). Surface compounds used within disks and on tapes are often very similar, and the read/write heads are also very

comparable in overall design (even between analog tape and digital disk systems). The primary differences between tape and disk are best boiled down as follows. First, disk tends to offer much faster data access times (random access) than tape. This access is almost instantaneous to different quadrants of the disk, and when applied to editing systems this is where the term "non-linear editing" has its origins. Disk systems write and read data like a high speed phonograph record using a movable arm. Tape on the other hand must be shuttled through a transport system to access a specific portion of the tape. Disk storage space however is generally much more expensive than equivalent tape storage space. This disparity in expense can be on the order several hundred or even a thousand to one for a given time segment of video. For tape there are countless camera and tape format (record deck) combinations possible. For sheer economy of scale and quality, it is still virtually impossible to beat tape for acquisition.

This acquisition step is the supply line and food chain that feeds your video editing system. The best video switcher in the world, be it a traditional switcher/edit controller, a desktop computer, or a nonlinear edit system is useless unless it has a signal source to input and work with. Additionally, on the output side of this equation you must either have a deck or some other distribution means to record, store or otherwise carry away the finished video product. Traditional systems use traditional studio VTR's in either a cuts-only or A/B roll capability, and use an additional VTR (or VTR's) to record the signal. Cuts-only systems are usually two deck systems, and A/B roll capability, and usually have three or more decks. Desktop computer systems can be either a switcher/edit controller package that drive decks in the traditional manner (two or three deck systems), or they can also incorporate hard disk based "nonlinear" storage/edit systems. Such hard disk "nonlinear" systems can augment multiple deck based systems (acting like yet another VTR) or they can completely form an

internal computer based editing system, only a single deck may be required to both input and output to and from the system.

Please also note here that in terms of current advertising the terms "digital" and "desktop" do not necessarily imply a "nonlinear" system. If you buy D-5 or Digital Betacam decks to drive an A/B roll system, you can build the entire suite completely digital (digital switcher/edit controller) and it will still be completely linear (linear i.e. tape). Only when you introduce hard drive storage or other random access storage into your editing system can you step into the "nonlinear realm. At this point let's switch gears yet again and look at some of the other digital and analog pro and con related issues.

The movement to digital video production is taking place on many fronts. You have the new digital tape formats. You also have the expanding proliferation of digital switchers, DVE's, titlers, paint boxes, etc., that that on one end of the spectrum can now all actually be housed in a single desktop computer. You have the nonlinear computer based edit systems that work off of hard drive storage, and you also have the new digital signal processing camera systems. Finally you have digital signal distribution such as the new satellite based broadcast systems. In contrast to this "digital revolution" you also have the analog tape formats and other analog production devices that have been the mainstay of video production work for the last several decades.

In terms of digital versus analog and "which is better" it is important to keep in mind one last broad generality. This is to signal processing and how these relate to digital vs. analog issues. In short you have analog storage (tape) and you have digital storage (tape, disk, other). You have analog signal processing (switchers, etc.) and you have digital signal processing (everything from cameras to computers). The dynamics of signal storage vs. signal processing

are entirely different and this should not be forgotten. In terms of editing, it is possible to have analog tape driving both analog or digital signal processing edit systems. Likewise it is possible to have digital storage (i.e.) disk driving both analog or digital edit systems. When someone talks about "analog" or "digital" it is important to note these specifics.

Digital signal processing is a great hallmark of modern computer and information processing systems. This influence is not being lost on modern video technology. We now have DSP (digital signal processing) cameras, digital switchers, digital effects, titling, graphics, animation, etc. However, when it comes to digital storage, digital tape and digital disk remain the primary workhorses right along side the traditional analog tape formats. It is entirely possible to build a complete digital video production system from tape or disk all the way through to distribution (at a price), and this might be the inclination of the aforementioned "advertisement and hype" oriented buyer.

However, another very reasonable alternative in today's marketplace is to take full advantage of DSP (digital signal processing) whenever and wherever possible (camera, editing systems, etc.), but in terms of storage to still use an analog tape format. Analog signal processing has some rather notable drawbacks compared to solid state digital processing technologies. The most notable of these are the generational losses associated with analog systems. However, contrary to popular digital hype, analog tape storage is very respectable at what it does, even when compared to the digital tape formats. As an illustration just keep in mind that the scanning taking place at the camera's CCD's is analog in the first place, and so are the scanning lines forming the picture on your home television set. What is one of the primary standards of quality currently being strived for by many if not most of the higher end desktop and nonlinear systems? Just look at how many times has the term "BetaCamSP quality" been used in recent sales and advertising literature for these

digital desktop and nonlinear systems. And guess what? As we all well know, BetaCamSP is an analog tape format.

Now enter MII, which is comparable or superior to BetaCamSP in almost every technical regard. MII is one of only two major video tape formats to record chrominance and luminance on separate tape tracks (BetaCamSP being the other). All the rest of the analog formats mix these signals onto one track. And though analog on the tape, MII studio VTR's come factory equipped with very high grade digital signal processing TBC's already built in, and this has been the case since the inception of MII machines.

What is my concluding thesis to this article? It is as follows. In building a system in today's age from scratch or even upgrading an existing video production system, it is in fact best whenever possible to stick with digital signal processing systems to include cameras, editing systems, etc. However, in terms of acquisition and storage, I would definitely not rule out the higher analog tape formats (MII, BetaCamSP) at this time, or for the foreseeable future. MII is right in line with BetaCamSP and 1" type C in terms of quality. Considering the ninety percent penetration of NTSC television into American homes, these formats are going to remain viable in the broadcast arena for years to come. The bulk of nonlinear systems out there today are well established at the SVHS (Y/C) industrial corporate quality level. However, for most of these systems there is still a large void in trying to reach the quality level of BetaCamSP, MII, 1" type C and the D-1 through 5 digital while still maintaining a reasonable cost. This is especially true in terms of YUV (analog MII) or 4:2:2 (digital) component signal use. The majority of the nonlinear systems out there today are composite or composite an component (MII and BetaCamSP quality) and some of these are very component (MII and BetaCamSP qualify) and some of these are very good systems.

However, in general this is the realm where the real growth needs to take place with these desktop and nonlinear systems.

MII acquisition decks and studio VTR's are currently just a fraction of the cost of comparable digital tape format VTR's. That is one of the reasons there were ore MII VTR's at this year's NAB driving desktop and nonlinear systems than ever before. In terms of component signal use, MII is one of the best if not the best analog tape format ever marketed. MII is readily capable of storing the output of DSP cameras and desktop and nonlinear editing systems with outstanding results. Should one wait another 6 months for the release of DVCPRO or Digital S (still "vaporware") at approximately twice the cost of current available MII machines. In terms of budgeting, this is a matter that should deserve some serious consideration to anyone currently building or upgrading a video production system.

NEXT MONTH: MII/DSP editing systems outlined with regards to maximum signal quality for the cost, and with regards to future expendability and interformat capabilities. Look for Part 3 in this series next month.

The following terms are property of their respective owners: BetaCam, BetaCamSP, Hi8, SVHS, VHS Umatic, UmaticSP, MII, Beta, DVCPRO, D-1, D-2, D-3, D-5, Digital BetaCam, Digital S, 1" Type C.

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